

REMARKS

Overview

The current non-final Office Action dated June 24, 2009 indicates the following: claims 1, 7-15, 63-74, 77 and 79-87 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over a combination of Carmax (www.carmax.com) and Bilibin et al. (U.S. Patent Publication No. 2005/0197892) and Cruz et al. (U.S. Patent No. 7,546,255); claims 16-19 and 32-62 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over a combination of Carmax and Bilibin and Cruz and Nicholls et al. (U.S. Patent No. 5,631,827); and claims 1, 7-11, 13-19, 32-53 and 77 are rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter.

Applicants hereby amend claims 1 and 16 in order to clarify the subject matter of their invention. Thus, claims 1, 7-11, 13-19, 32-57, 59-74, 77 and 79-87 continue to be pending.

Analysis

Rejections Not Based On Cited Art

In the current Office Action, the method claims 1, 7-11, 13-19, and 32-53 have been newly rejected as allegedly being directed to non-statutory subject matter, and in particular as failing to satisfy the so-called “machine-or-transformation test.” While Applicants disagree with the basis of these rejections, independent method claims 1 and 16 have been amended, and are believed to clearly recite statutory subject matter. In particular, independent claim 1 as amended recites that various claim elements are automatically “performed by the one or more programmed computer systems of the item ordering service,” and independent claim 16 as amended recites that various claim elements are automatically “performed by the one or more programmed computer systems of the merchant.” Accordingly, claims 1, 7-11, 13-19, and 32-53 as amended each clearly recites a particular machine that is configured to perform particular claim elements, and Applicants therefore request that these rejections be withdrawn.

In addition, independent computer-readable medium claim 77 has been rejected in the current Office Action as allegedly being directed to non-statutory subject matter, as the claim is

alleged to recite non-functional descriptive material that fails to meet the IEEE definition of a data structure. (Office Action dated June 24, 2009, page 3). No basis has been given to substantiate the assertion that claim 77 recites non-functional descriptive material or that it fails to meet the IEEE definition of a data structure. Moreover, it is clear from the language of claim 77 that it both recites functional descriptive material and satisfies the IEEE definition of a data structure. Attention is directed to MPEP Section 2106.01, "Computer-Related Nonstatutory Subject Matter," which states the following:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) . . . When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized.

With respect to claim 77, it recites a data structure that "imparts functionality when employed as a computer component", describes a "logical relationship among data elements, designed to support specific data manipulation functionality," and is "recorded on a computer-readable medium," as specified in MPEP Section 2106.01. In particular, claim 77 recites a "computer-readable medium containing a data structure for use in providing to a user actual fulfillment information for each of multiple distinct fulfillment plans that are options for fulfilling an order, . . . , the data structure comprising a multiplicity of entries each representing one of the multiple fulfillment plans, each entry comprising: an indication of the fulfillment plan; and an indication of actual fulfillment information that reflects the fulfilling of the order if the indicated fulfillment plan is used, the actual fulfillment information for the indicated fulfillment plan including . . ." As such, claim 77 recites statutory subject matter, in accordance with MPEP Section 2106.01 and corresponding caselaw, and Applicants request that this rejection be withdrawn.

Rejections Based On Cited Art

The current Office Action has rejected each of the previously pending claims as being unpatentable over a combination of Carmax and Bilibin and Cruz, with some of the claims being further rejected based on Nicholls. However, the pending claims as rejected include features and provide functionality not disclosed or suggested by Carmax, Bilibin, Cruz or Nicholls, and thus are allowable over those references.

Some embodiments of Applicants' invention are generally related to enhancing operations of a merchant or other item ordering service by automatically identifying multiple alternative fulfillment plans that are options for the merchant to use to fulfill an order from a customer for one or more items, and by automatically determining information about how use of particular fulfillment plan options will affect fulfillment of the order. For example, before receiving an order from a customer for one or more items, the described techniques may be used to automatically select a preferred one of multiple alternative fulfillment plan options for fulfilling the order if it is received, such as to enable the customer to receive information about an actual delivery date of the one or more items to the customer (or other recipient) if the customer places the order using a particular fulfillment plan. In at least some embodiments, the merchant or other item ordering service that fulfills orders may have multiple alternative item distribution centers to use in fulfilling orders, such as item distribution centers that are geographically distributed in various locations and that each carry inventory for various items, and may consider alternative fulfillment plans that include using various of the distribution centers as part of the order fulfillment processing.

As one example of features and functionality that are not taught, suggested or otherwise obvious in light of Carmax, Bilibin, Cruz and Nicholls, the pending claims generally recite that a computer system of a merchant or online order service is used to, before receiving an order from a customer for one or more items, automatically determine multiple alternative options for fulfilling such a possible future order from one or more distribution centers, and automatically determine additional information about how the order fulfillment will occur if the order is fulfilled using that option, such as to determine a cost of use of each option and/or actual delivery time information. For example, independent computer-implemented method claim 16 recites the following:

. . . before receiving the request [from a customer of a merchant] to initiate the ordering process to order the items,

automatically determining multiple fulfillment plans that are options for fulfilling an order for the items, each fulfillment plan indicating one or more distribution centers . . . [that are] a selected subset of multiple alternative distribution centers of a merchant that each are available to supply at least one of the indicated items;

for each of at least some of the determined fulfillment plans, automatically determining a time of actual delivery of the items if that fulfillment plan is used to fulfill the order . . . , the determining of actual delivery time based at least in part on information determined about processing that would take place at the distribution centers indicated by the fulfillment plan . . . , the processing that would take place at those indicated distribution centers for that fulfillment plan including preparing the items for the transporting of the items from those indicated distribution centers;

automatically selecting one of the at least some determined fulfillment plans to be used for fulfilling the order based at least in part on the determined actual delivery time for the selected fulfillment plan . . .

Independent computer-implemented method claim 63 as amended similarly recites the following:

. . . under control of a computer system of a merchant, and for each of multiple alternative distribution centers of the merchant, determining at least one option for fulfilling the order from that distribution center that includes a manner of shipping the order to a recipient;

under the control of the computer system of the merchant, and for each of multiple of the determined options, determining an actual provision date on which the order will be provided to the recipient if that determined option is used for fulfilling the order and determining a cost for fulfilling the order if that determined option is used to fulfill the order, the determining of the actual provision date being based at least in part on processing that would take place at the distribution center for the option to prepare the order to be packaged and shipped; and . . .

The other independent claims 1, 54, 59, 62, and 77 each recite similar language for some or all of the indicated features.

Conversely, Carmax, Bilibin, Cruz and Nicholls appear to lack any teaching or suggestion to have or use these features in the manner claimed. For example, with respect to the recited claim elements related to, before receiving a particular possible order for one or more particular items to be delivered to a particular recipient, automatically analyzing multiple alternative fulfillment plans for satisfying that possible order, and determining an actual delivery date for that particular possible order if it is made, none of Carmax, Bilibin, Cruz and Nicholls

include any related functionality, as discussed in greater detail below. Nonetheless, with respect to claim 1, the current Office Action appears to allege that the Carmax reference teaches all of the recited claim elements, other than determining an actual delivery date for a possible order (for which the current Office Action cites Bilibin), and considering processing that is performed at possible alternative item distribution centers as part of determining such an actual delivery date (for which the current Office Action cites Cruz). (Office Action dated June 24, 2009, pages 4-6).

However, this description of the teachings of the Carmax reference is a mischaracterization. Instead, Carmax merely describes a search engine via which a user can identify the locations of particular vehicles of interest, and provides no disclosure of any type of automated system for performing any automated determination or processing regarding fulfilling any order. In fact, Carmax refers to its Web site as merely an “Online Vehicle Search Engine,” and further describes that the search software is only able to search limited subsets of the overall inventory at a single time. (Carmax, page 2). Carmax appears to lack any description of any automated functionality that goes beyond merely retrieving information from a database and displaying it to a user, and clearly fails to disclose numerous recited claim elements. As non-limiting examples, Carmax clearly fails to disclose the following: with respect to claim 1, automatically determining “fulfillment plans for supplying the items to the customer that are each associated with one of the determined [multiple geographically distributed] item distribution centers ..., each fulfillment plan ... indicating a manner of shipping the items from the associated item distribution center to the customer and indicating information about processing that would take place at the associated item distribution center as part of the fulfillment plan to prepare the items for the shipping to the customer,” let alone automatically determining multiple alternative such fulfillment plans for the purpose of comparison, as well as “for each of multiple of the determined distinct fulfillment plans, determining a cost of use for that fulfillment plan if the items are supplied using that fulfillment plan, and determining an actual delivery date for that fulfillment plan on which the customer will receive the items if the items are supplied using that fulfillment plan.” Similarly, with respect to claim 16, Carmax clearly fails to disclose “automatically determining multiple fulfillment plans that are options for fulfilling an order for the items, each fulfillment plan indicating one or more distribution centers

from which the items of the order are to be transported to a recipient, the one or more distribution centers for each fulfillment plan being a selected subset of multiple alternative distribution centers of the merchant that each are available to supply at least one of the indicated items,” as well as “for each of at least some of the determined fulfillment plans, automatically determining a time of actual delivery of the items if that fulfillment plan is used to fulfill the order and determining a cost for fulfilling the order if that fulfillment plan is used to fulfill the order.” Each of the other independent claims include similar claim elements that are clearly lacking in Carmax.

Moreover, the Cruz and Bilibin references fail to remedy these deficiencies of Carmax. While Cruz includes some discussion of an inventory system that is used as part of scheduling for a manufacturing operation, it appears to lack any disclosure of determining multiple alternative fulfillment plans for an order that has not yet been received, including based on using multiple alternative geographically distributed item distribution centers. Similarly, Bilibin appears to lack any disclosure of determining multiple alternative fulfillment plans for fulfilling an order from multiple alternative geographically distributed item distribution centers, including by considering any information about processing that would take place at such item distribution centers – instead, Bilibin discloses that an auction seller may currently have possession of an item that is to be auctioned, and may use various shipping companies in shipping that single item to an auction buyer. Thus, even if motivation existed to combine the disclosure from the Carmax, Cruz, and Bilibin references, the combination would merely provide a search engine for existing inventory, a manufacturing planning system for manufacturing items for which orders have already been received, and an auction system that provides seller-specified options for shipping a particular item that is available. All of these references lack even the most basic idea of an automated system for, before a particular order is received for particular items to be delivered to a particular recipient, automatically determining multiple alternative fulfillment plans for fulfilling such a future order from multiple alternative geographically distributed item distribution centers, and automatically determining related costs and delivery dates for such alternative fulfillment plans, including by considering any information about processing that would take place at such item distribution centers.

Accordingly, each of the pending claims 1, 7-15, 63-74, 77 and 79-87 is patentable over Carmax, Bilibin and Cruz for at least these reasons.

In addition, for claims 16-19 and 32-62 that have been further rejected based on Nicholls as well as Carmax, Bilibin and Cruz, Nicholls fails to remedy the deficiencies of these other relied-upon references. In particular, Nicholls has been alleged by the current Office Action to be relevant for recited claim elements related to automatically selecting a particular one of multiple alternative fulfillment plans (Office Action dated June 24, 2009, page 12), such as for the recited claim element of claim 16 of “automatically selecting one of the at least some determined fulfillment plans to be used for fulfilling the order based at least in part on the determined actual delivery time for the selected fulfillment plan and based at least in part on the determined cost for the selected fulfillment plan.” While Nicholls appears to discuss shipping software for small businesses that may be configured with information about different shippers’ costs and delivery times, so as to select particular shipping options in particular situations, such determination of particular shipping costs is not related to the recited claim elements discussed above that are lacking in the Carmax, Bilibin and Cruz references. In particular, in a manner similar to Carmax, Bilibin and Cruz, Nicholls appears to lack any disclosure of determining multiple alternative fulfillment plans for an order that has not yet been received, including from multiple alternative geographically distributed item distribution centers, as well as considering information about processing that would take place at such item distribution centers. Thus, each of the pending claims 16-19 and 32-62 is similarly patentable over Nicholls in addition to Carmax, Bilibin and Cruz.

Furthermore, the current Office Action fails to provide any reason that one of skill in the art would be motivated to modify the systems of the prior art references to include such functionality that they lack, or how the prior art reference systems could even obtain the recited types of information to use in the recited manners. Applicants note that the Supreme Court recently emphasized in its *KSR v. Teleflex* ruling (U.S. Supreme Court, 2007) that a finding of obviousness should be supported by an explicit reason that one of skill in the art would have been motivated to modify existing systems or techniques to achieve the claimed systems or techniques. In particular, the Supreme Court indicated the following:

it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is

so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known. . . . A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon ex post reasoning. See Graham, 383 U. S., at 36 (warning against a temptation to read into the prior art the teachings of the invention in issue. and instructing courts to . . . guard against slipping into the use of hindsight. . . (quoting Monroe Auto Equipment Co. v. Heckethorn Mfg. & Supply Co., 332 F. 2d 406, 412 (CA6 1964))).

KSR v. Teleflex, 550 U.S. ___, 127 S. Ct. 1727 (2007), at pages 15-17 of the Bench Opinion.

In this situation, one example of why one skilled in the art would not have a reason to modify the Carmax, Bilibin, Cruz and Nicholls systems to achieve the benefits of Applicants' inventive techniques recited in the pending claims is that none of the prior art reference systems are related to a merchant's automated fulfillment of orders for items from multiple alternative item distribution centers that include those items in inventory, and thus they would have no reason to include such functionality to identify alternative item distribution centers and fulfillment plans before an order is even received. Accordingly, no reason has been demonstrated why one of skill in the art would be motivated to modify the Carmax, Bilibin, Cruz and Nicholls systems to include the various claimed elements that those systems lack.

Furthermore, the relied-upon references similarly fail to disclose other claim elements that are recited in at least some of the claims.

For example, some of the pending claims include further recitations about particular types of processing that takes place at a merchant's item distribution centers to automatically determine information about an option for fulfillment of an order, and about how that information is used in the recited automated determinations performed by the merchant's computer systems. As one example, claims 15 and 43 as previously rejected recite the following, with emphasis added, and claim 81 includes similar recitations.

[claim 43] wherein the determined information about the processing that would take place at the distribution centers indicated by the selected fulfillment plan includes an indication of one or more processing lanes to be used at each of the distribution centers indicated for the selected fulfillment plan, such that the determining of the actual delivery time for the selected fulfillment plan is further based in part on the indicated one or more processing lanes.

[claim 15] wherein at least some of the determined fulfillment plans additionally indicate one or more processing lanes to be used at each of the indicated item distribution centers, and wherein, for each of the at least some determined fulfillment plans, the determining of the actual delivery date for that fulfillment

plan is based at least in part on the one or more processing lanes indicated to be used for that fulfillment plan.

The current Office Action fails to provide any indication of why the recited claim elements are obvious in light of the prior art, and in fact admits that Carmax and Bilibin fail to disclose such functionality, stating “Carmax and Bilibin . . . fail to disclose the fulfillment plans including processing lanes.” (Office Action dated June 24, 2009, page 9, with respect to claim 15, and similar indication on pages 13-14 with respect to claim 43). Instead, the current Office Action alleges that the recited claim elements are nonfunctional descriptive material and not functionally involved in the recited steps, stating “[t]he steps of providing the delivery fulfillment plans and indicating the fulfillment plans, would be performed the same regardless of whether the plans included the processing lanes due to the fact that no further steps use the information on the processing lanes for any other reason.” (Office Action dated June 24, 2009, pages 9 and 14). However, this allegation of the recitations being nonfunctional descriptive material is clearly incorrect, as claim 43 recites that “the determining of the actual delivery time for the selected fulfillment plan is further based in part on the indicated one or more processing lanes” and recites “selecting one of the at least some determined fulfillment plans to be used for fulfilling the order based at least in part on the determined actual delivery time for the selected fulfillment plan,” and claim 15 recites similar language. Accordingly, the information about the processing lanes is used in automatically determining actual delivery time, and the automatic selecting and use in claim 43 of a particular fulfillment plan is based on that automatically determined actual delivery time. Thus, as it is clear that the claim recitations are not nonfunctional descriptive material, and since the current Office Action admits that the relied-upon prior art does not disclose such functionality, Applicants submit that these claims are further allowable for at least this reason.

In addition, some of the pending claims generally recite that the determining of the cost of use for a particular fulfillment plan option for a current order includes modeling future costs of supplying future orders, and further includes costs assigned to reduction in customer goodwill based on using that particular fulfillment plan, such as claims 14 and 40 as previously rejected. The current Office Action does not provide any indication of corresponding disclosure in the cited prior art, other than a reference to two paragraphs in Bilibin that makes no mention of

customer goodwill, nor of costs of expected future orders that are based on the current use of a particular fulfillment plan. The current Office Action instead argues that the ‘expected future orders’ recited in “future costs of supplying expected future orders . . . if the indicated items are supplied to the customer using the fulfillment plan” (claim 14) can be interpreted to be a current cost for a current order if the current order is not yet completed. Despite these allegations, however, claims 14 and 40 make abundantly clear that the expected future orders are distinct from the current order, with claim 14 reciting that “the expected future orders being from multiple customers for multiple items and being distinct from the potential order for the items by the customer,” and claim 40 reciting similar language. Accordingly, for both of these reasons related to modeling future costs of expected future orders and to assigning costs to reductions in customer goodwill, claims 14 and 40 are further patentable over the cited prior art references. Various other dependent claims recite other additional features lacking in the cited references, and are thus allowable on the basis of those features as well, although these additional features are not enumerated here for the sake of brevity.

In addition, various of the pending claims further recite that the automated analysis of the multiple alternative fulfillment plans includes considering information about processing that takes place at the item distribution center. For example, independent claim 63 recites “for each of multiple of the determined options, . . . , the determining of the actual provision date [on which the order will be provided to the recipient if that determined option is used for fulfilling the order] being based at least in part on processing that would take place at the distribution center for the option to prepare the order to be packaged and shipped,” and independent claim 16 recites “for each of at least some of the determined fulfillment plans, . . . , the determining of actual delivery time [of the items if that fulfillment plan is used to fulfill the order] based at least in part on information determined about processing that would take place at the distribution centers indicated by the fulfillment plan . . . , the processing that would take place at those indicated distribution centers for that fulfillment plan including preparing the items for the transporting of the items from those indicated distribution centers.” The other independent claims include similar recited claim elements.

While the Cruz reference has been newly introduced in an attempt to provide a disclosure of functionality related to these recited claim elements, the disclosure of Cruz is instead related

to managing the scheduling of manufacturing items for a manufacturing plant. As such, not only does Cruz fail to disclose functionality related to fulfilling orders of items from item distribution centers, but no motivation exists to combine such manufacturing-related software with software for a search engine to review existing vehicle inventory (such as Carmax), an auction system that provides seller-specified options for shipping a particular item that is available (such as Bilibin), and shipping software for small businesses (such as Nicholls), as discussed previously. Thus, the pending claims are further patentable on the basis of these recited claim elements as well.

Thus, for at least the reasons discussed above, the pending independent claims are patentable over Carmax, Bilibin, Cruz and Nicholls, and the pending dependent claims are also allowable for the same reasons, as well as for various additional reasons specific to the recitations of those dependent claims.

Conclusion

In light of the above remarks, Applicants respectfully submit that all of the pending claims are allowable. Applicants therefore respectfully request the Examiner to reconsider this application and timely allow all pending claims. If the Examiner has any questions or believes a telephone conference would expedite prosecution of this application, the Examiner is encouraged to call the undersigned at (206) 694-4815.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Respectfully submitted,
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